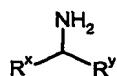


CLAIMS

1. A process for the preparation of a compound of Formula (1):

5



Formula (1)

wherein:

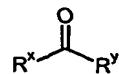
10 R^x is optionally substituted aryl; and

R^y is optionally substituted hydrocarbyl;

which comprises the steps:

(a) reducing a compound of Formula (2):

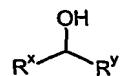
15



Formula (2)

20 to a compound of Formula (3):

25



Formula (3)

wherein R^x and R^y are as defined for Formula (1);

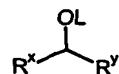
(b) reacting a compound of Formula (3) with a leaving group donor, to give a compound of
30 Formula (4);

35

wherein:

R^x and R^y are as defined for Formula (1); and

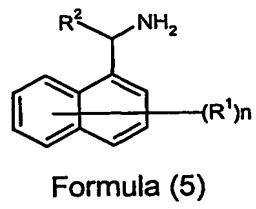
OL is a leaving group;



Formula (4)

(c) reacting a compound of Formula (4) with ammonia to give a compound of Formula (1).

2. A process according to claim 1 for the preparation of a compound of Formula (5):



wherein:

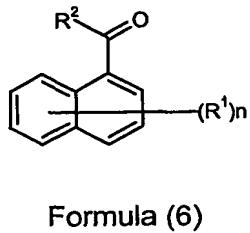
R^1 is a substituent;

R^2 is optionally substituted hydrocarbyl; and

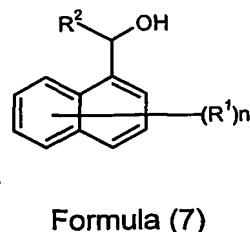
10 n is 0 to 4;

which comprises the steps:

(a) reducing a compound of Formula (6):



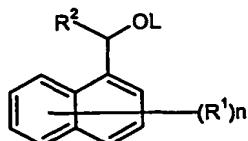
to a compound of Formula (7):



wherein R^1 , R^2 and n are as defined for Formula (5):

25

(b) reacting a compound of Formula (7) with a leaving group donor, to give a compound of Formula (8);



30

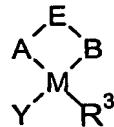
Formula (8)

wherein:

R^1 , R^2 and n are as defined for Formula (5);

OL is a leaving group:

- 5 (c) reacting a compound of Formula (8) with ammonia to give a compound of Formula (5).
3. A process according to claim 2 where R^2 is optionally substituted C_{1-4} alkyl.
 4. A process according to claim 3 where R^2 is methyl.
- 10 5. A process according to any one of the preceding claims wherein n is 0.
6. A process according to any one of the preceding claims where step (a) is carried out in the presence of a catalyst.
- 15 7. A process according to claim 6 where the catalyst is of Formula (A):



Formula (A)

wherein:

R^3 represents a neutral optionally substituted hydrocarbyl, a neutral optionally substituted perhalogenated hydrocarbyl, or an optionally substituted cyclopentadienyl ligand;

25 A represents $-NR^4-$, $-NR^5-$, $-NHR^4$, $-NR^4R^5$ or $-NR^5R^6$ where R^4 is H, $C(O)R^6$, SO_2R^6 , $C(O)NR^6R^{10}$, $C(S)NR^6R^{10}$, $C(=NR^{10})SR^{11}$ or $C(=NR^{10})OR^{11}$, R^5 and R^6 each independently represents an optionally substituted hydrocarbyl, perhalogenated hydrocarbyl or an optionally substituted heterocyclyl group, and R^{10} and R^{11} are each independently hydrogen or a group as defined for R^6 ;

30 B represents $-O-$, $-OH$, OR^7 , $-S-$, $-SH$, SR^7 , $-NR^7-$, $-NR^8-$, $-NHR^8$, $-NR^7R^8$, $-NR^7R^9$, $-PR^7-$ or $-PR^7R^9$ where R^8 is H, $C(O)R^9$, SO_2R^9 , $C(O)NR^9R^{12}$, $C(S)NR^9R^{12}$, $C(=NR^{12})SR^{13}$ or $C(=NR^{12})OR^{13}$, R^7 and R^9 each independently represents an optionally substituted hydrocarbyl, perhalogenated hydrocarbyl or an optionally substituted heterocyclyl group, and R^{12} and R^{13} are each independently hydrogen or a group as defined for R^9 ;

35 E represents a linking group;

M represents a metal capable of catalysing transfer hydrogenation; and

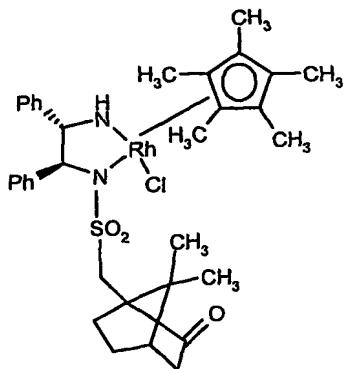
Y represents an anionic group, a basic ligand or a vacant site;

provided that when Y is not a vacant site that at least one of A or B carries a hydrogen atom.

8. A process according to claim 7 wherein A-E-B, R³ and Y are chosen so that the catalyst is chiral.

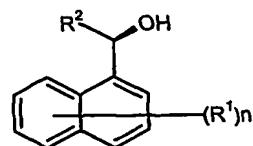
9. A process according to either claim 7 or claim 8 wherein M, the metal, is rhodium present in valence state III and R³ is an optionally substituted cyclopentadienyl ligand.

10 10. A process according to any one of claims 7 to 9 where the catalyst of Formula (A) is of formula:



11. A process according to any one of the preceding claims wherein step (a) is a stereospecific reaction.

12. A process according to any one of the preceding claims wherein the product of step (a) is a compound of Formula (9):



Formula (9)

wherein:

R¹ is a substituent;

R² is optionally substituted hydrocarbyl; and

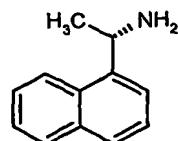
n is 0 to 4.

13. A process according to any one of claims 1 to 5 where in step (b) the leaving group donor is a compound of formula R¹⁴SO₂X, where R¹⁴ is an optionally substituted

alkyl, optionally substituted aryl or an optionally substituted heteroaryl group and X is a halogen.

14. A process according to claim 13 where in step (b) the leaving group donor is
5 methanesulphonyl chloride.

15. A process according to either claim 1 or claim 2 for the preparation of a compound of Formula (10):

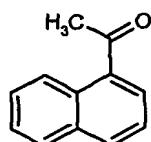


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Formula (10)

which comprises the steps:

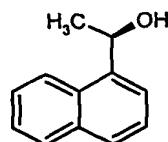
15 15 (a) reducing a compound of Formula (11):



Formula (11)

20

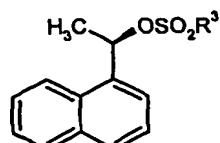
to a compound of Formula (12):



Formula (12)

25

(b) reacting a compound of Formula (12) with a compound of formula R^3SO_2X , in the presence of a base, to give a compound of Formula (13);



30

Formula (13)

wherein:

R^3 is optionally substituted C_{1-4} alkyl; and

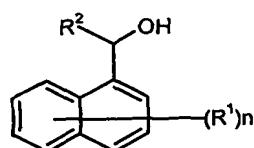
X is halogen:

- 5 (c) reacting a compound of Formula (13) with ammonia to give a compound of Formula (10).

16. A process according to claim 15 where step (a) is carried out in the presence of a catalyst of Formula (A) as described in claim 7.

10 17. A process according to claim 15 wherein the compound of Formula (10) is purified by diastereomeric salt resolution using (L)-tartaric acid or (L)-chloropropionic acid.

15 18. A process for the preparation of a stereoisomer of a compound of Formula (14):



Formula (14)

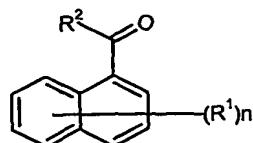
wherein:

R^1 is a substituent;

20 R^2 is optionally substituted hydrocarbyl; and

n is 0 to 4:

which comprises the transfer hydrogenation of a compound of Formula (6):



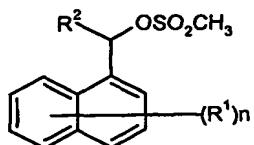
25 Formula (6)

by a hydrogen donor in the presence of a catalyst of Formula (A) as described in claim 7.

30 19. A process for the diastereomeric salt resolution of (S)-1-naphthylethylamine which comprises mixing (S)-1-naphthylethylamine with (2R,3R)-tartaric acid or (S)-chloropropionic acid to form the corresponding diastereomeric salt.

20. A diastereomeric salt of (S)-1-naphthylethylamine with (2R,3R)-tartaric acid or (S)-chloropropionic acid.

21. A compound of Formula (15):



5 Formula (15)

wherein:

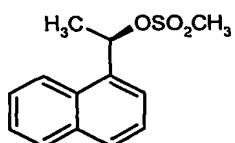
R¹ is a substituent;

R² is optionally substituted hydrocarbyl; and

n is 0 to 4.

10

22. A compound according to claim 21 of Formula (15) which is of Formula (16):



15 Formula (16)